

## Appendix A

### Alignment of SEQ ID NO: 46759 and Related Nucleic Acids

**ATGTAGGCAATTGCGTGCCTAGAACATTGCTAATGTGCCCTGGGTTTCCTGCCTTCATGCAAATATTCTACCTCCCCCGGCCTGGTGCA**  
ATGTAGGCAATTGCGTGCCTAGAACATTGCTAATGTGCCCTGGGTTTCCTGCCTTCAT (SEQ ID NO: 1916)  
TAGCCAATTGCGTGCCTAGAACAT (SEQ ID NO: 4641)

**AAATGTCTGCCTCAGAATACTAACAGCTAATCCAAGCTAACATTCTATCAGTAAACGGGCAGAAACTGATAAGGACCGCGGAGTTTGG**  
**CCCTCCGCGGTGTCCGGTGGTCCTCACACGTGCCCTCCCCCGGGCCGATGGCTGAGGCCCGGAATATGCAAGTGCATCTTTCTAACCA**  
**GTAGGGGCCCTCCACCTAGGTGCTTTGTTAATCTTTAGTGGGAAGTAGTGGGAGTGCTGTGCCTCGGGTACCCCTATCCTATAGGTCTTA**  
**CCGGAGCTCCTTGTCTTGATAATCCCTGTAAACACACACCACCTAAGAACAAGGCATTGTTAACCTTTGGTGGAACCTAGTGTTAGTGT**  
**TGTGCTGTAAATAAGTGTCCAGCGCACCACTAGTCACCAGGTGTCACCGGAGGCTACTTGCCTCAGTGCCACTTTTACCTTCTCAAATC**

**TATACGGGGGGGGGGGGGGCTCTGTAAACATTTGGTGGGACCTGATGCTGCTGGTGTGCTGTAAATAAGTGCCTAGCACATCACGTAGGC**  
ATACGGGGGGGGGGGGGGXXXXXXXXXXXXXXXXXXXX (Okamoto)  
GGGGGGGGGGGGGGCTCTXX (Homburger)  
XTGCTGGTGTGCTGTAAAXX (Dean)

**ACCAGGTGTCACCAGGGCTACTTGCCTCGGCATCTCCTCACCGGAGAAGGGGTAAACAAACCCGTGGGGGGTCTTAGTGGAAGTGACGT**  
(SEQ ID NO: 1917) CCCGTGGGGGGTCTTAGTGGAAGTGACGT

**GCTGTGAATACAGGTCCATAGCACCGCTATCCACTATGTCTCGCCCGGG**  
GCTGTGAATACAGGTCCATAGCACCGCTATCCACTATGTCTCGCCCGGG (SEQ ID NO: 1917 continued)  
TAGCACCGCTATCCACTATGTCTC (SEQ ID NO: 4642)

**Bold** = SEQ ID NO: 46759

underline = nucleotides of alleged prior art sequences identical to SEQ ID NO: 46759

X = unspecified nucleotides of nucleic acid